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(71) Applicant

Floorplan Electrical Limited

(Incorporated in United Kingdom)

Standcliffe Street, Blackburn, Lancashire, BB2 2QR

(72) Inventor

Robert Stevens

(74) Agent and/or Address for Service

Roystons

Tower Building, Water Street, Liverpool, L3 1BA

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(54) Access flooring system

(57) An access flooring system comprises flooring panels 10 supported by pedestals 12 above a subfloor 14 and service feed provisions are by way of trunking 20 running below the panels 10. Saddle straps 30 are shaped to take the trunking 20 medially of the straps and having end extensions (30E) that engage over heads 12H of the pedestals (12). The straps 30 are secured in place together with and by the same means as used to secure flooring panels 10 to the pedestal heads 12H.

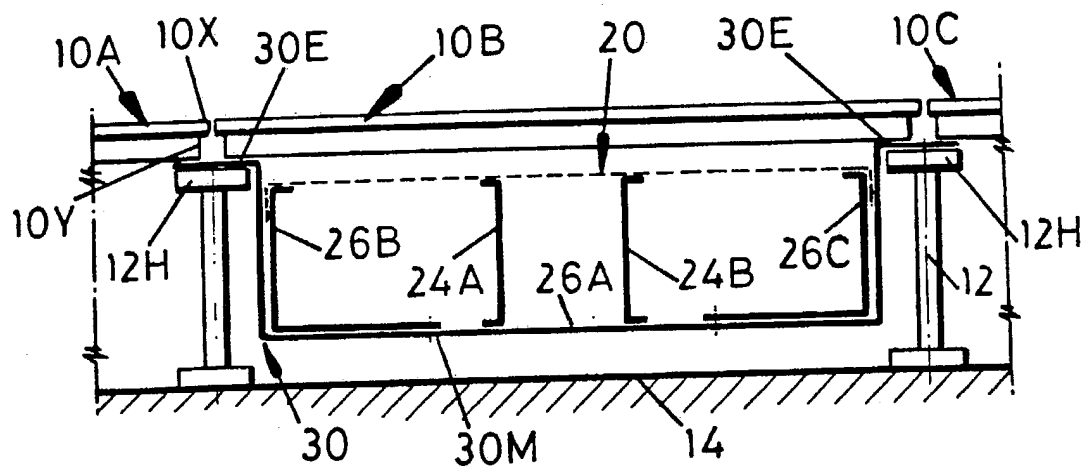
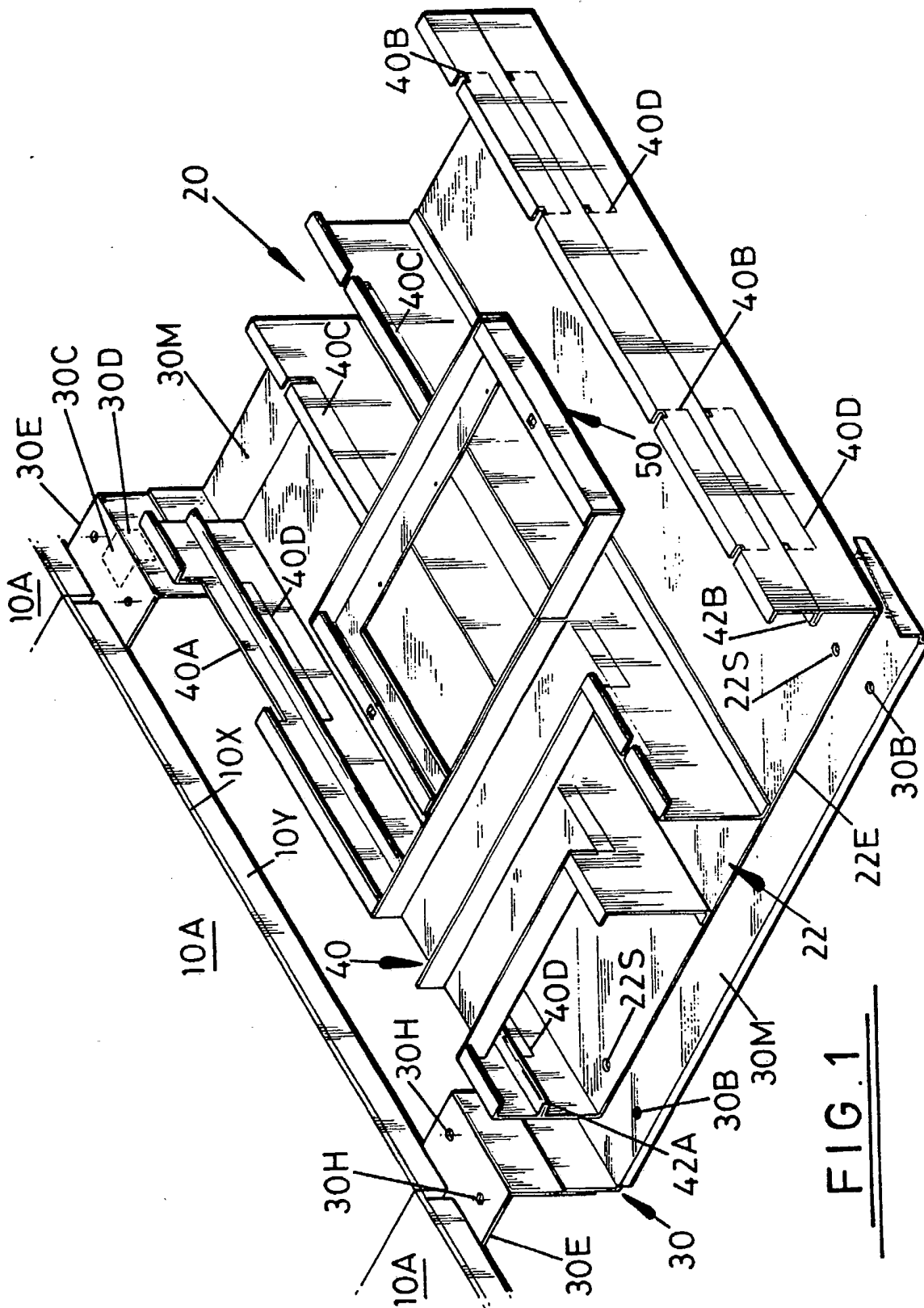


FIG. 2

The drawing(s) originally filed was (were) informal and the print here reproduced is taken from a later filed formal copy.



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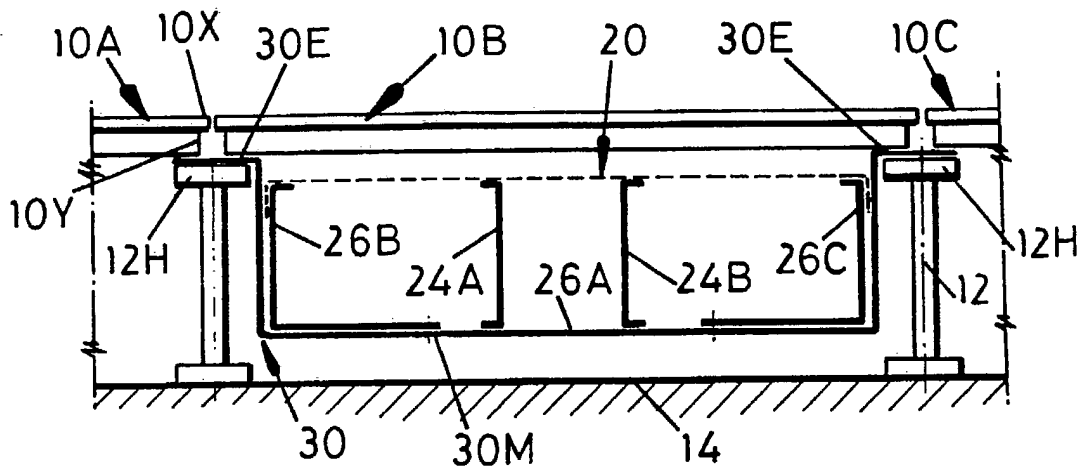


FIG. 2

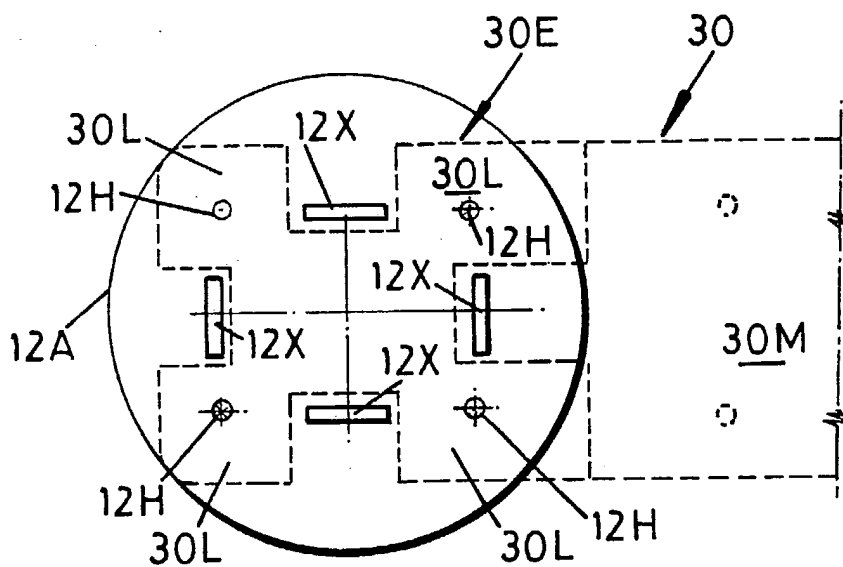


FIG. 3

Title: Access Flooring System

#### DESCRIPTION

This invention relates to service feed provisions for flooring systems particularly, if not exclusively, of the type known as access floors comprising flooring  
5 panels, usually rectangular, supported on pedestals from a base or subfloor, usually at corners of flooring panels.

Latterly, specific service feed provisions have developed from simple trays to give segregation of  
10 services, conveniently by lengthwise partitioning of trays known as trunking. This invention applicable to both such systems, and we use the word "trunking" generically, in particular where such trunking is slung  
15 below flooring panels.

Our aim herein is to provide a particularly simple and advantageous mounting provision for trunking.

According to this invention, saddle-like straps  
20 shaped to take trunking medially of the straps are each extended at their ends to engage over heads of pedestals and be secured in place together with and by

the same means as used to secure flooring panels to those pedestal heads, typically using screws.

Preferred such straps have their extensions go under corners of each of flooring panels, usually four, supportable by the pedestal head concerned, and may advantageously be shaped to clear panel cover spacing/location formations of the pedestal head. A typical strap extension then has four lobes spaced to go about those head formations. One such spacing is preferably extended down the strap so as further to give clearance for stringers that may be required to extend between pedestals when increasing the load-bearing capacity of a floor using a particular design of flooring panels.

In implementing preferred embodiments of this invention, trunking can be in modular lengths conveniently substantially matching overall flooring panel dimensions in the same direction. Then, lifting a panel over a trunking run allows the underlying trunking module also to be lifted out at least after undoing its preferred connections to the underlying saddle straps, each of which can support adjacent ends of successive trunking modules. The saddle straps themselves will, of course, still be trapped on the pedestal heads, in fact secured thereto via

side-adjacent flooring panel securement to those pedestal heads. The advantages of such features are, if anything, yet more important in simplifying installation of access floors.

5           Specific implementation of this invention will now be indicated, by way of example, with reference to the accompanying drawing, in which:

Figure 1 is an incomplete isometric view of part of an access floor with trunking provision;

10           Figure 2 is a fragmentary section of a similar floor; and

Figure 3 is a detail view of a particular pedestal head and associatable saddle strap.

15           In the drawing, referring first to Figure 1, rectangular flooring panels 10A in a row-and-column array are supported at their corners on heads of pedestals, see 12A of 12 in Figure 2, from a base or subfloor, see 14 also in Figure 2. Between one row or column of flooring panels, 10A as shown, and the next  
20           but one row or column thereof, see 10C in Figure 2, i.e. under the intervening row or column of panels (10B in Figure 2), is a trunking provision 20. That trunking provision is modular, see 22, and supported on saddle straps 30 serving adjacent ends (22E) of  
25           successive modules.

The saddle straps 30 have a medial part 30M that accommodates the trunking 20, conveniently quite snugly and/with securement thereto (see screw/bolt holes 30B in Figure 3), and end extensions, see 30E, that go  
5 under corners of the flooring panels 10, actually over pedestal heads (12A in Figures 2 and 3) and further actually secured in position by securement means for corners of the flooring panels 10, see holes 12H also in Figure 3 for screws or bolts and with which the  
10 strap extension 30E have registering holes 30H. Also indicated once and dashed at 30C, D is a position for a cut-out (30C) from the end extension 30M and going down the strap (at 30D) to accommodate stringers should same be required for further support of the flooring panels  
15 10.

Figure 3 shows a particular preferred variant for a pedestal head with upstanding locator formations 12X for flooring having tops 10X overhanging their bodies 10Y and then providing butts for the bodies 10Y.  
20 Moreover, Figure 3 shows (dashed) the strap extension formed with lobes 30L separated by spaces fitting about the locator formations 12X.

It will be appreciated that presence of strap extensions 30E sandwiched between pedestal heads 12A  
25 and corners of all of up to four supported flooring

panels 10 assures that all such panels will be at the same level. Pedestal heads 12A not having strap extensions 30E thereover may have their pedestals 12 suitably height-adjusted (in conventional manner) to correspond.

It will further be appreciated that the straps 30 hereof are fixed securely at the same time as fixing the flooring panels 10 relative to the pedestal heads 12A, usually by screws into fixed nuts interior of the panel bodies 10Y. Trunking modules 22 are readily separately fixed to the saddle straps 30, see screws 22S and holes 30B, say with associated fixed nuts (not shown) at undersides of the strap parts 30M.

Advantageous trunking, as shown in Figure 2, has three-way segregation via partitions 24A, 24B secured at lower out-turned edges on bottom 26A of a channel member with upstanding sides 26B, 26C. Upper out-turned edges of the partitions 24A, 24B generally match heights of in-turned edges of the channel sides 26B, 26C, and may be covered by a plate 28 to give complete isolation as well as segregation.

Further advantageous features shown in Figure 1 for trunking modules 22 include partitioned trays, see 40, to go to trunking channels via upper cut-aways in trunking sides and partitions, see 40A and knock-outs



40B, 40C. Further side knock-outs are shown at 40D, actually below 40A, 40B and separated therefrom by a reinforcing and tray-supporting function, see 42A, 42B. Figure 1 also shows an access provision frame 50  
5 fitting over the partitions to give direct access via flooring panels 10B over the trunking 20. Other access provisions for other panels will, of course, be served via the trays 40.

## CLAIMS

1. In or for an access flooring system having flooring panels supported above a subfloor on pedestals and service feed provisions by way of trunking running  
5 below said panels, one or more saddle-like straps each shaped to take such trunking medially of that strap and each extended at their ends to engage over heads of said pedestals and be secured in place together with and by the same means as used to secure said panels to  
10 those pedestal heads.
2. An access flooring system according to claim 1, wherein said ends of said straps fit under corners of more than one of said panels supported by the same pedestal.
- 15 3. An access flooring system according to claim 2, wherein the pedestal heads have spacing/location formations for covers of said panels and said ends of said straps are each shaped to clear said spacing/location formations.
- 20 4. An access flooring system according to claim 3, wherein said ends of said straps each have lobe formations spaced to go about said spacing/location formations.

5. An access flooring system according to claim 4, wherein at each said end, one of the spacings between said lobe formations extends down the strap at its medial shaping to take trunking and affords clearance  
5 for fitting of stringers wherever required to extend between pedestals.

6. An access flooring system according to any preceding claim, wherein the securement means comprises screws through corners of the flooring panels and into  
10 the pedestal heads.

7. An access flooring system according to any preceding claim, wherein said trunking is in modular lengths matching overall dimensions of each of the flooring panels overlying such trunking.

15 8. An access flooring system with saddle-like straps substantially as herein described with reference to and as shown in the accompanying drawings.